

CUMBERLAND COUNTY COUNCIL.

ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH,

F. H. MORISON, M.D., D.P.H.

FOR THE YEAR 1928.

CARLISLE:
STEEL BROS. (CARLISLE), LIMITED. PRINTERS.

1929.

CUMBERLAND COUNTY COUNCIL.

To the Cumberland County Council.

MR. CHAIRMAN, LADIES AND GENTLEMEN,

I have pleasure in presenting to you this my Twenty-first Annual Report on the Health of the Administrative County for the year 1928.

It is satisfactory to record that the death-rate (12.3) is the lowest ever recorded in the County, and that it is 1.3 per 1,000 of population lower than in the previous year.

The Infant Mortality rate (62 per 1,000 births) is also the lowest ever recorded, and for the first time in my experience is below the infant mortality rate (65) for England and Wales.

Satisfactory as this reduction in the infant mortality must be considered, there is still room for further improvement. In 1914, 56 per cent. of the deaths of infants occurred before they had lived for three months, whilst in 1928 this figure had actually increased to 69 per cent.

The saving in infant life has, therefore, been effected entirely after the infant has survived its most dangerous period, namely, the first three months of its life.

In previous Reports I have pointed out that the chief causes of infant deaths, particularly during the first three months, are prematurity and congenital debility. It is obvious, therefore, that the causes of these deaths are conditions in the health of the mothers prior to the birth of the child, and that if infant mortality is to be further and substantially reduced it can only be done by attention to the health of expectant mothers.

In this Report I have dealt at some length with Maternal Mortality, but as I have instructions from your Health Committee to draw up and submit a complete ante-natal scheme, at an early date, I have not made any suggestions as to the scope of the scheme or as to the methods in which the work should be carried out.

Efficient ante-natal work would certainly prevent a large proportion of our, at present, very high maternal mortality, as well as further decrease the infant mortality.

With regard to tuberculosis, although it is satisfactory to note that the death-rate from this disease throughout the County has decreased by very nearly one-half during the last twenty years, the scheme for dealing with it is not, and never can be, a complete success under existing conditions.

It must be evident to everyone that the first essential to the success of any effective method of dealing with tuberculosis is the early ascertainment of the cases, and when it is realised that during the last three years over 60 per cent. of the cases were only brought to our notice at the time of death or within six months or less thereof, it goes without saying that no method of prevention or cure can possibly be effective.

The work of your Health Department is steadily increasing, and it has, I venture to hope, met with a certain measure of success which has been achieved by the loyal support of all members of my staff, medical, nursing, and clerical, as well as by the kindness and consideration we invariably receive from all members of your Committees.

I have the honour to be,

Ladies and Gentlemen,

Yours obediently,

F. H. MORISON,

County Medical Officer of Health.

September, 1929.

SUMMARY OF VITAL STATISTICS.

	Birth-rate.		Death-rate.		Infant. Mortality.	
	1928.	1927.	1928.	1927.	1928.	1927.
Urban Districts	19.1	17.6	12.6	14.7	61	99
Rural Districts	16.5	16.6	11.9	12.3	64	57
Administrative						
County	17.9	17.2	12.3	13.6	62	81
England & Wales ...	16.7	16.7	11.7	11.6	65	69

Area.

The area of the Administrative County as given in the Census Returns for 1921 is 968,598 acres—Municipal Boroughs and Urban Districts 62,133 acres, and Rural Districts 906,465 acres.

Population.

The population as given by the Registrar-General for the year 1928:—

Urban Districts	... ..	116,960
Rural Districts	... ..	93,640
Administrative County	...	210,600

a decrease of 5,630 on the previous year. According to the Registrar-General's estimate of the population an increase has only occurred in two of the Urban Districts, namely, Holme Cultram—increase 116, and Whitehaven Borough—increase 170.

The following table shows the decrease in all the other Urban and Rural Districts:—

<i>Urban Districts.</i>		<i>Rural Districts.</i>	
Workington	..... 760	Alston	..... 43
Arlecdon and		Bootle	..... 149
Frizington	..... 104	Brampton	..... 364
Aspatria	..... 59	Carlisle	..... 420
Cleator Moor	..... 300	Cockermouth	..... 490
Cockermouth	..... 175	Longtown	..... 250
Harrington	..... 232	Penrith	..... 170
Egremont	..... 611	Whitehaven	..... 340
Keswick	..... 166	Wigton	..... 260
Maryport	..... 30		
Millom	..... 508	Total	..... 2490
Penrith	..... 390		
Wigton	..... 91		
	<hr/>		
Total	..... 3140		
	<hr/>		

Births.

The Births registered in the County during the year 1928 numbered 3,782 (1,937 males and 1,845 females), giving a birth-rate of 17.9 per thousand of population, compared with 3,719 births (1,877 males and 1,842 females) and a rate of 17.2 the previous year.

In the Urban Districts there were 2,234 births (1,140 males and 1,094 females), giving a rate of 19.1, and in the Rural Districts 1,548 births (797 males and 751 females), giving a rate of 16.5 per thousand of population.

The corresponding figures for the previous year were:—Urban Districts, 2,117 births and a rate of 17.6; and in the Rural Districts, 1,602 births and a rate of 16.6.

The birth-rate for England and Wales was 16.7 for the year.

Arranged in the order of their birth-rates the Urban and Rural Districts stand thus:—

<i>Urban.</i>	<i>Rural.</i>
Whitehaven . 24.6 (22.1)	Wigton 18.8 (17.9)
Maryport ... 20.0 (16.5)	Penrith 18.6 (17.4)
Arlecdon and	Longtown ... 17.7 (20.7)
Frizington. 19.4 (17.7)	Cockermouth. 17.0 (17.7)
Penrith 18.9 (17.9)	Whitehaven . 16.6 (17.2)
Egremont ... 18.4 (14.5)	Carlisle 14.7 (15.2)
Holme	Brampton ... 14.4 (13.5)
Cultram ... 18.4 (14.1)	Bootle 12.9 (13.2)
Workington . 18.2 (17.5)	Alston 10.8 (12.9)
Cleator Moor 18.1 (15.9)	
Harrington .. 17.9 (19.6)	
Wigton 17.8 (15.0)	
Millom 16.5 (16.1)	
Keswick 14.9 (17.7)	
Cockermouth. 13.7 (13.6)	
Aspatria 13.2 (17.8)	

NOTE.—In all the tables the figures in brackets are those of the previous year.

Illegitimate Births.

The number of illegitimate births was 264; thus 70 per 1,000 of the total births were illegitimate, compared with 222 and 60 the previous year. The rates of illegitimate births per 1,000 of the total births in the various sanitary districts are as follows:—

<i>Urban Districts.</i>	<i>Rural Districts.</i>
Keswick 114 (40)	Brampton 153 (119)
Cockermouth .. 109 (15)	Penrith 113 (81)
Holme Cultram 108 (101)	Wigton 111 (57)
Wigton 92 (18)	Cockermouth .. 82 (75)
Millom 90 (54)	Carlisle 81 (70)
Cleator Moor... 82 (49)	Alston 69 (57)
Penrith 79 (66)	Longtown 64 (76)
Arlecdon and	Bootle 53 (76)
Frizington .. 74 (34)	Whitehaven ... 52 (61)
Workington ... 48 (41)	
Aspatria 42 (47)	
Whitehaven ... 38 (41)	
Harrington ... 38 (88)	
Egremont 34 (40)	
Maryport 23 (72)	

In the Urban Districts 57 and in the Rural Districts 87 per 1,000 births were illegitimate, compared with 49 and 73 respectively in the previous year.

Deaths.

The number of deaths registered was 2,597 (1,328 males and 1,269 females). This gives a death-rate of 12.3 per 1,000, compared with 2,958 (1,535 males and 1,423 females) and a rate of 13.6 per 1,000 the previous year.

The death-rate of England and Wales was 11.7.

In the Urban Districts there were 1,477 deaths (759 males and 718 females), giving a rate of 12.6. In the Rural Districts there were 1,120 deaths (569 males and 551 females), giving a rate of 11.9.

The corresponding figures for the previous year were : Urban Districts, 1,772 and a rate of 14.7 ; Rural Districts, 1,186 and a rate of 12.3.

Arranged in the order of their death-rates the Urban and Rural Districts stand thus :—

<i>Urban Districts.</i>	<i>Rural Districts.</i>
Keswick 19.1 (17.2)	Brampton ... 16.8 (14.1)
Wigton 15.1 (12.3)	Alston 14.9 (19.1)
Arlecdon and Frizington. 14.1 (12.4)	Carlisle 13.6 (13.2)
Cockermouth. 14.1 (12.2)	Wigton 12.2 (12.1)
Maryport ... 13.6 (15.1)	Penrith 11.9 (11.2)
Millom 13.1 (17.8)	Bootle 10.8 (11.7)
Egremont ... 12.6 (14.0)	Whitehaven . 10.7 (10.7)
Harrington .. 12.4 (10.0)	Longtown ... 10.6 (14.7)
Penrith 11.9 (12.1)	Cockermouth. 10.3 (11.1)
Whitehaven . 11.9 (16.9)	
Aspatria 11.8 (13.6)	
Cleator Moor. 11.3 (14.0)	
Holme	
Cultram ... 11.2 (11.0)	
Workington . 11.2 (15.1)	

Infant Mortality.

3,782 births were registered and 237 infants died before they reached the age of one year. The infant

mortality was, therefore, at the rate of 62 per 1,000 births, 19 per 1,000 lower than the previous year.

The Infant Mortality in England and Wales was 65 per 1,000 births.

In the Urban Districts there were 2,234 births, and 137 infant deaths. The infant mortality rate was, therefore, 61 per 1,000 births, 38 per 1,000 lower than in the previous year.

In the Rural Districts there were 1,548 births, 100 infant deaths, giving an infant mortality of 64 per 1,000 births, 7 per 1,000 higher than in the previous year.

The mortality rate for legitimate infants was 59 per 1,000, that of illegitimate infants 128 per 1,000.

Arranged in the order of their infant mortality rates the Urban and Rural Districts stand thus:—

<i>Urban Districts.</i>	<i>Rural Districts.</i>
Arlecdon and Frizington ... 107 (103)	Alston 103 (28,
Keswick 98 (106)	Penrith 95 (29)
Wigton 90 (71)	Brampton 81 (55)
Harrington ... 77 (55)	Whitehaven ... 68 (70)
Workington ... 70 (94)	Cockermouth .. 66 (67)
Whitehaven ... 67 (135)	Carlisle 63 (54)
Holme Cultram 65 (58)	Bootle 53 (25)
Maryport 64 (134)	Wigton 37 (52)
Cleator Moor... 52 (91)	Longtown 27 (90)
Cockermouth .. 47 (45)	
Aspatria 42 (125)	
Egremont 34 (80)	
Millom 24 (117)	
Penrith 13 (33)	

Cancer.

311 deaths were registered as due to Cancer, a rate of 1.4 per 1,000 of population, as compared with 303 deaths and a rate of 1.4 the previous year.

Arranged in the order of their death rates from Cancer the Urban and Rural Districts stand thus:—

Urban Districts.

Keswick	3.9 (1.4)
Penrith	2.1 (1.4)
Arlecdon and Frizington ...	2.0 (1.2)
Harrington ...	2.0 (0.8)
Maryport	1.8 (1.5)
Millom	1.7 (1.5)
Aspatia	1.4 (2.8)
Egremont	1.4 (0.9)
Holme Cultram.	1.4 (1.4)
Wigton	1.3 (2.1)
Workington ...	1.3 (1.1)
Whitehaven ...	1.1 (1.4)
Cleator Moor ...	1.0 (1.9)
Cockermouth ...	0.6 (0.8)

Rural Districts.

Alston	2.7 (3.3)
Brampton	2.2 (1.4)
Penrith	1.6 (1.5)
Carlisle	1.5 (1.8)
Wigton	1.4 (1.7)
Bootle	1.3 (2.0)
Longtown	1.3 (2.9)
Whitehaven ...	1.0 (1.3)
Cockermouth ...	0.9 (0.8)

In the Urban Districts the death-rate from Cancer was 1.5 per 1,000 of population, whilst in the Rural Districts it was 1.3 per 1,000.

Zymotic Diseases.

The diseases included under this name are:—Enteric Fever, Measles, Smallpox, Scarlet Fever, Whooping Cough, Diphtheria, and Diarrhœa.

54 deaths were registered from these diseases, compared with 68 the previous year. This gives a rate of 0.2, compared with 0.3 the previous year. Arranged in the order of their death-rates from Zymotic Diseases the Urban and Rural Districts stand thus:—

Urban Districts.

Arlecdon and Frizington ...	1.2 (0.4)
Workington ...	0.5 (0.2)
Cockermouth ...	0.2 (Nil)
Harrington ...	0.2 (Nil)
Keswick	0.2 (Nil)
Whitehaven ...	0.2 (1.4)
Wigton	0.2 (0.2)
Egremont	0.1 (0.4)
Millom	0.1 (0.2)
Penrith	0.1 (0.2)
Maryport	0.09 (0.2)
Aspatia	Nil (0.5)
Cleator Moor ...	Nil (0.5)
Holme Cultram.	Nil (Nil)

Rural Districts.

Longtown	0.4 (0.1)
Alston	0.3 (0.3)
Penrith	0.3 (0.8)
Carlisle	0.2 (0.2)
Whitehaven ...	0.2 (0.2)
Brampton	0.1 (0.1)
Cockermouth ...	0.1 (0.1)
Wigton	0.09 (Nil)
Bootle	Nil (Nil)

Respiratory Diseases.

From these diseases—principally Bronchitis and Pneumonia—there were 320 deaths, compared with 439 the previous year. The death-rate in the Administrative County from these diseases was 1.5 per 1,000 of population, compared with 2.0 per 1,000 the previous year.

In the Urban Districts the rate was 1.7, against 2.3, and in the Rural Districts the rate was 1.2, against 1.6 in the previous year.

Arranged in the order of their death-rate from Respiratory Disease the Urban and Rural Districts stand thus:—

<i>Urban Districts.</i>		<i>Rural Districts.</i>	
Keswick	2.9 (1.6)	Alston	2.6 (3.3)
Holme Cultram.	2.6 (1.6)	Brampton	1.8 (2.1)
Harrington ...	2.5 (1.7)	Cockermouth ...	1.6 (2.3)
Cleator Moor ...	2.4 (1.5)	Wigton	1.2 (1.3)
Egremont	2.2 (2.0)	Bootle	1.0 (0.6)
Millom	2.1 (2.6)	Longtown	0.9 (1.8)
Cockermouth ...	1.9 (0.6)	Carlisle	0.8 (1.3)
Arlecdon and		Penrith	0.8 (0.9)
Frizington ...	1.8 (2.0)	Whitehaven ...	0.8 (1.3)
Wigton	1.6 (1.3)		
Whitehaven ...	1.5 (4.3)		
Workington ...	1.5 (2.3)		
Maryport	1.3 (2.2)		
Penrith	1.2 (1.9)		
Aspatria	0.2 (0.8)		

General Provision of Health Services.

No change has occurred within the year.

Maternity and Child Welfare.

There were at the end of the year 1928 on the roll 98 trained and one untrained Midwives.

All the Midwives are visited by the Inspector every three months, and special visits are paid when deemed necessary. During the year 396 routine and 32 special visits were paid.

The number of notices received under Rule 23 of the Central Midwives Board is as follows:—

Medical help	...	...	...	279
Still-birth	...	...	...	19
Liable to be a source of infection	...	...	...	19
Artificial feeding	...	...	...	18
Laying out dead body	...	...	...	40

Payments made to doctors under Section 14 of the Midwives Act, 1918, amounted to £430 12s. 3d.

During the year the following visits were paid to the homes:—

	By Health Visitors.	By District Nurses.
To births notified	943	1635
First visits		
To births not notified	74	32
Re-visits	6789	17814
Ante-natal visits	51	6454
Visits to children 1-5	2527	3747
	<hr/> 10384	<hr/> 29682

I propose to deal in this Report at some length with the subject of Maternal Mortality for three reasons:—

(a) Because of the importance of the subject. Healthy motherhood is the foundation on which all preventive medicine should be built;

(b) Because of the unsatisfactory position of this County as regards maternal deaths; and

(c) Because I am confident that a large proportion of the maternal deaths could be prevented, provided proper methods were put into operation and efficiently carried out. It is hardly conceivable that anyone will question the importance of the prevention of maternal mortality, more especially if the following facts and their significance be realised.

During the last fifteen years the general death-rate in Cumberland has been reduced from 13.6 per 1,000 of population to 12.3.

During the same period the Infant death-rate has been reduced from 94 to 62 per 1,000 births.

With regard to Maternal Mortality, Cumberland is in a very unsatisfactory position, and were it not possible to give a very definite assurance that much can be done

to remedy matters, I would hesitate to put before you such facts and figures as I propose doing. During the last 15 years an average of 24 mothers have each year lost their lives in what ought to be a physiological function. When we compare this number of maternal deaths with the number of deaths from all causes, 24 seems a small number, but if we realise the fact that for every maternal death we have left in the community at least ten mothers permanently disabled or invalided from the same conditions that killed 24, the question becomes one of overwhelming importance, because in addition to 24 maternal deaths we have in the County at least 240 mothers seriously incapacitated every year.

The sad feature is, and there cannot be any question about it, provided proper measures were put into operation—and *that expectant mothers were willing to accept the help offered them*—and that these measures were efficiently carried out, a large proportion of the deaths and invalidism could be prevented.

The maternal mortality in Cumberland is not only not showing a tendency to decrease, as the other mortality figures have done, but on the contrary is showing a distinct and steady tendency to rise, and this is true whether we consider the County as a whole or whether we divide it into its Urban and Rural Districts.

This is clearly shown in the following Table, which represents the maternal mortality for 15 years, divided into three quinquennial periods.

Table showing the Maternal Mortality in Cumberland and its Urban and Rural Districts in three quinquennial periods:—

	Urban Districts.	Rural Districts.	Administrative County.
1st Quinquennium, 1913 to 1917.	4.8	3.9	4.4
2nd Quinquennium, 1918 to 1922.	5.0	5.1	5.0
3rd Quinquennium, 1923 to 1927.	5.4	5.9	5.6

How does Cumberland compare with other Counties in England?

I have taken from the Annual Reports of the Registrar-General the maternal deaths in each County in

England for 15 years, 1913-27, and worked out the proportion of maternal deaths per 1,000 births in each County.

Graph I. shows the result.

It will be noted that the average maternal mortality for all the Counties of England combined is 3.7 per 1,000 births, that for Cumberland is 5.0 per 1,000. It will further be noticed that the mortality in Cumberland is only exceeded by two Counties in England, and that by only one decimal point per 1,000 births.

I have further divided the 15 years into three quinquennial periods for each County, and I find the most disquieting results are revealed.

In some of the Counties there is a distinct tendency for mortality to decrease, in some it is stationary, whilst in some it has increased one period and decreased another. In two Counties a very slight increase is shown. Cumberland, however, is the only County which shows a steady and marked increase from one quinquennial period to the other, as is shown in the above Table.

In the reports of the Registrar-General the causes of maternal deaths are classified under two main headings:—

1. Puerperal Sepsis.
2. Other Accidents and Diseases of Pregnancy and Parturition.

Graph II. shows the average deaths per 1,000 births from Puerperal Sepsis in each County in England over a period of 15 years.

It will be noted that the average death-rate from this cause in Cumberland is only exceeded by eight Counties in England.

Graph III. similarly shows the average death-rates from Accidents during Pregnancy and Parturition, and from this cause Cumberland is, with one exception, the worst County in England, and is only exceeded in that County by one decimal point per 1,000 births.

Graph IV. shows the average maternal death-rate from all causes in each of the 23 Sanitary Districts of the County over a period of 15 years.

Graph V. shows the death-rate from Puerperal Sepsis in each Sanitary District over the same period.

Graph VI. shows the death-rate from "Accidents" in each Sanitary District over the same period.

It is quite certain that an efficient scheme to safeguard the health of expectant mothers, i.e., an ante-natal scheme, would within a very short time reduce this very high maternal mortality. But in order to do this the general public will have to be educated in order that all may learn what ante-natal work means, as well as what it can do to prevent the deaths as well as prevent damage to the health of mothers.

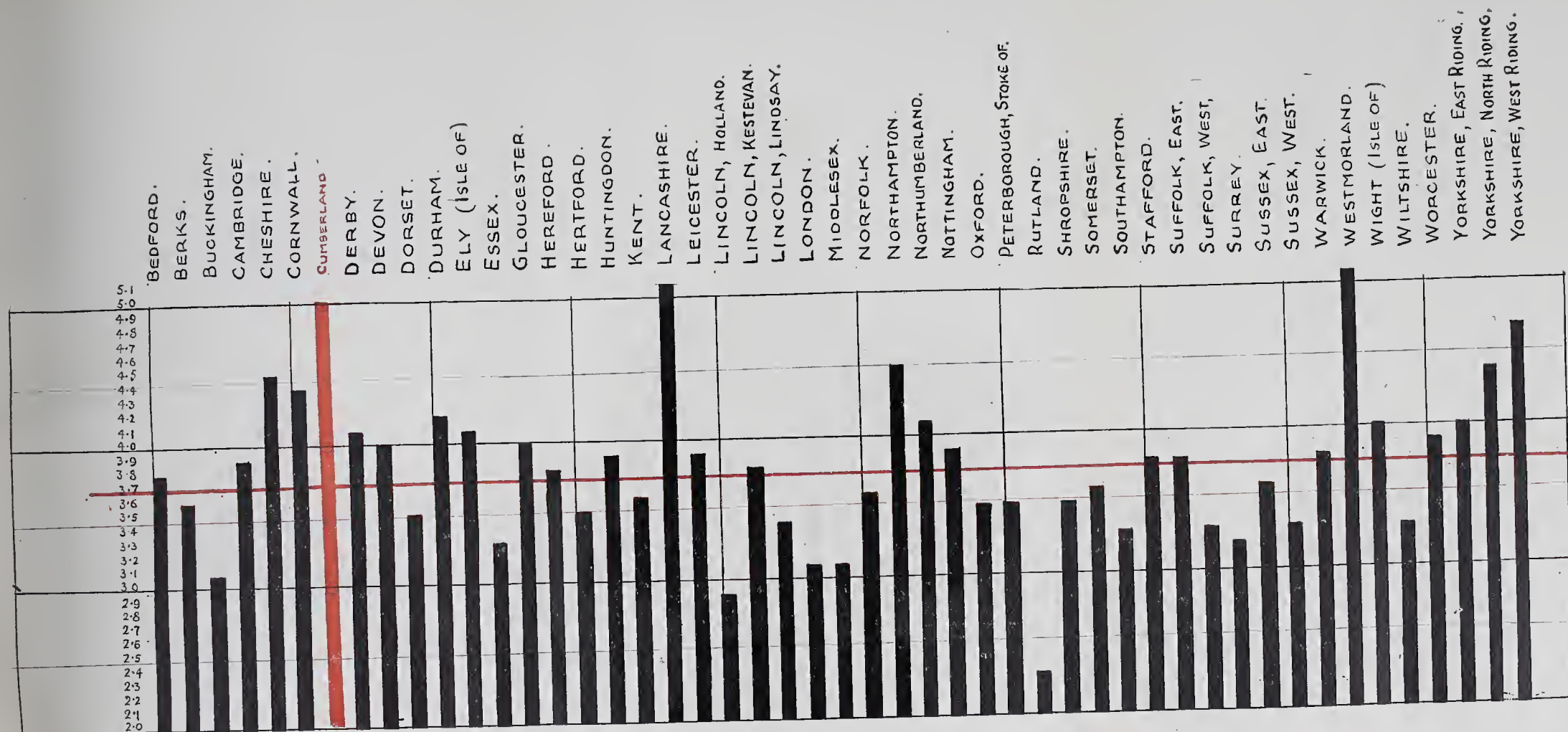
It is equally certain that no scheme, however well planned, can have any effect whatever, unless expectant mothers are prepared to take full advantage of the facilities provided, and at the present time they are, for some reason best known to themselves, not so prepared. That is why the necessity for education must be stressed.

What ante-natal care means and what it can do to protect motherhood is so well and explicitly dealt with in a paper I have recently read by Lady Barrett, M.D., M.S., Consulting Obstetrician and Gynaecological Surgeon to the Royal Free Hospital, London, that I make no apology for quoting extensively from it.

"If we could ensure such ante-natal care as even our present knowledge sees to be desirable, we believe it would have far-reaching effects on the health of both mother and child, e.g. :—

(a) It would be possible to secure normal health during pregnancy for women; (b) by getting in touch with the mother early in her pregnancy, the best treatment at the time of labour could be made available for every woman and every class, thereby reducing both maternal and infant mortality at childbirth; ((c) such care would have an important influence on infant life and health, for we believe that many causes of miscarriage would be avoided, and, moreover, we might expect that the increased vitality of the mother would transmit a resistance to disease on the part of the child which would tend considerably to lower the mortality of infants in the first few weeks of life, and at the same time to reduce those crippling diseases of childhood which tend permanently to handicap the adult.

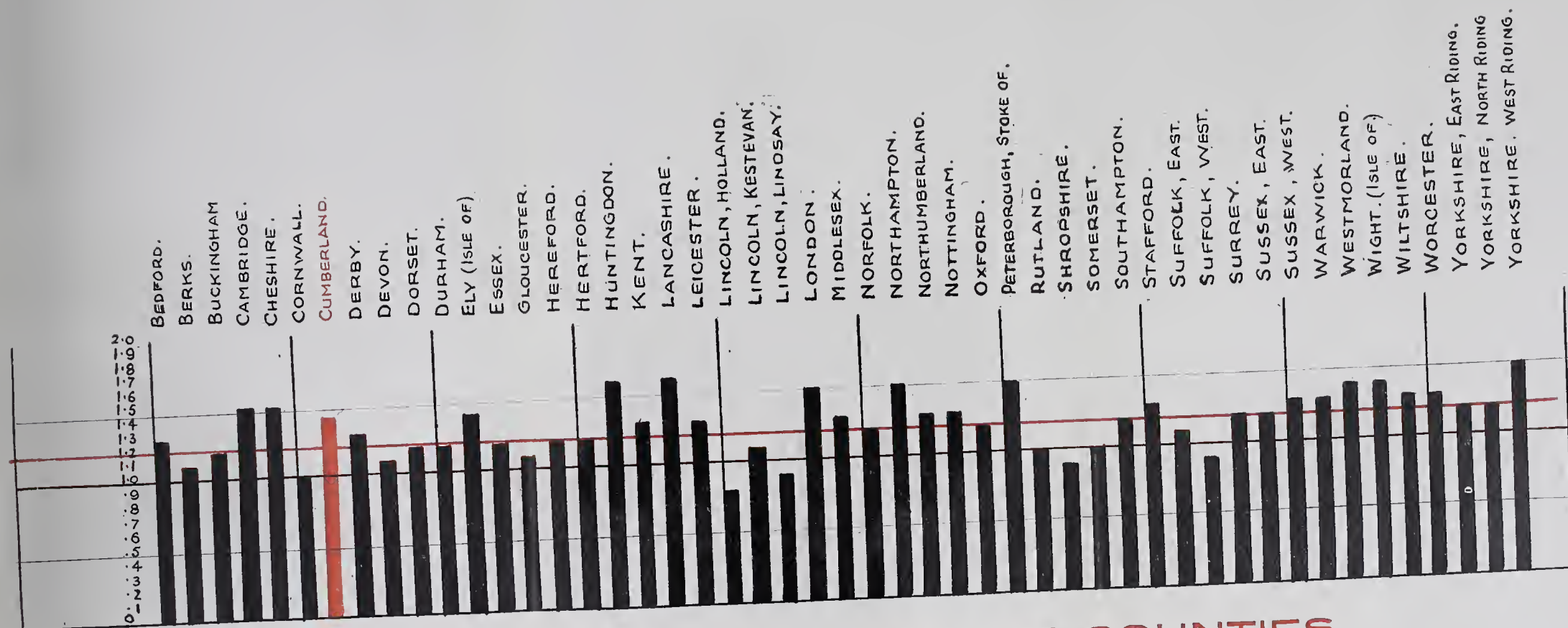
Let us examine these possibilities in more detail to discover, if we may, what methods are necessary to produce such desirable results. (a) Can we expect to secure



MATERNAL MORTALITY—ENGLISH COUNTIES

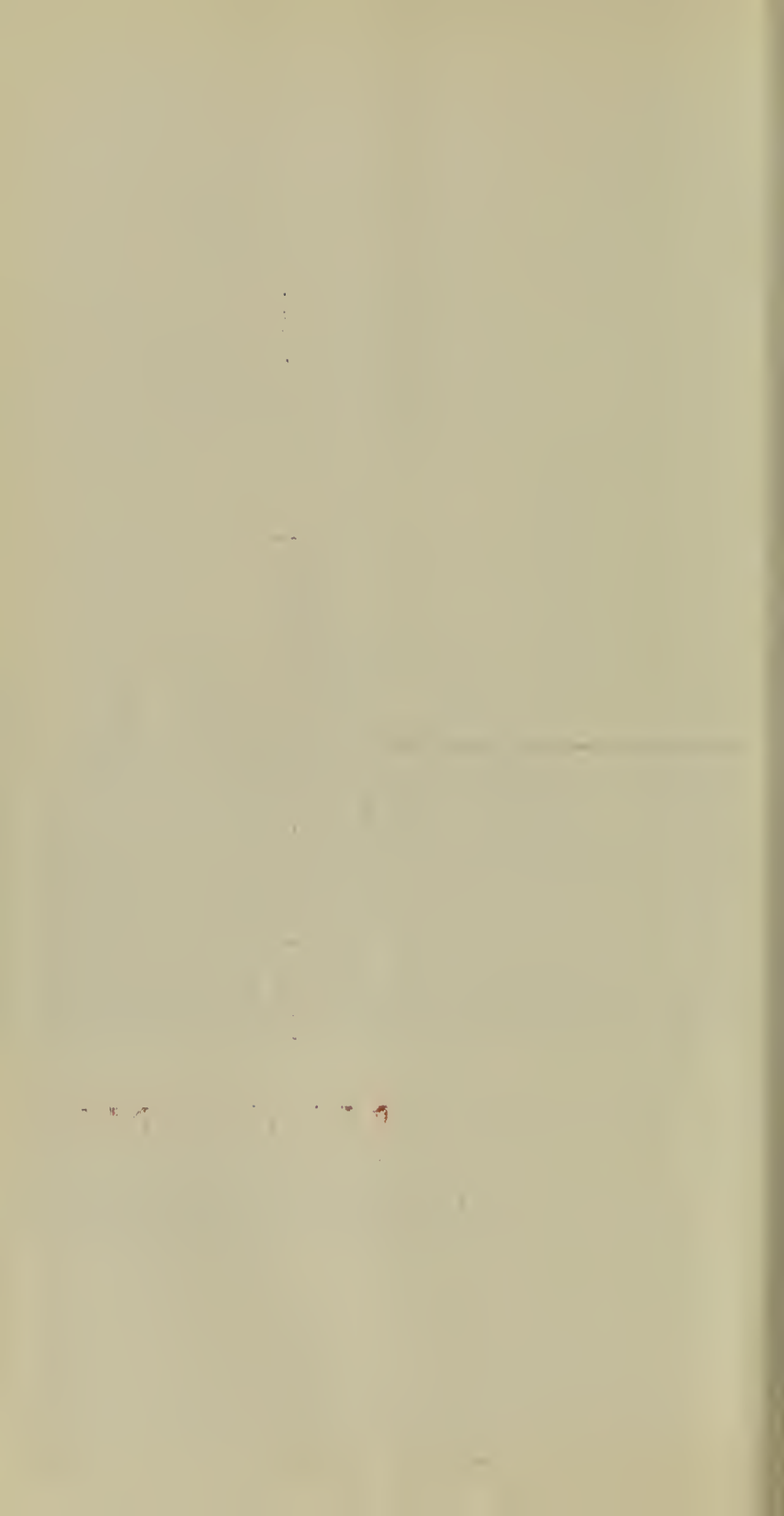
AVERAGE MATERNAL DEATHS PER 1,000 BIRTHS FROM ALL CAUSES 1913-1927.
COUNTIES AVERAGE 3.7

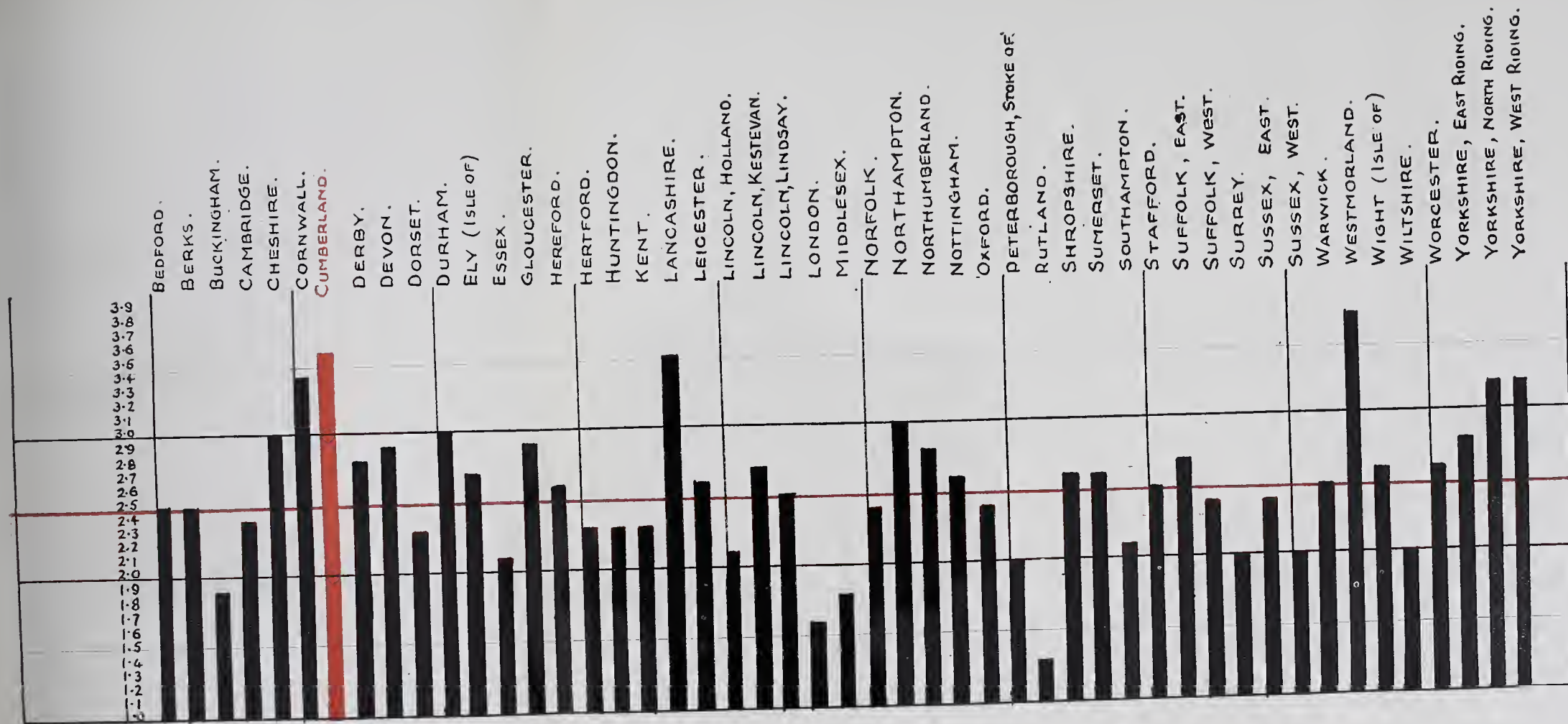




MATERNAL MORTALITY—ENGLISH COUNTIES

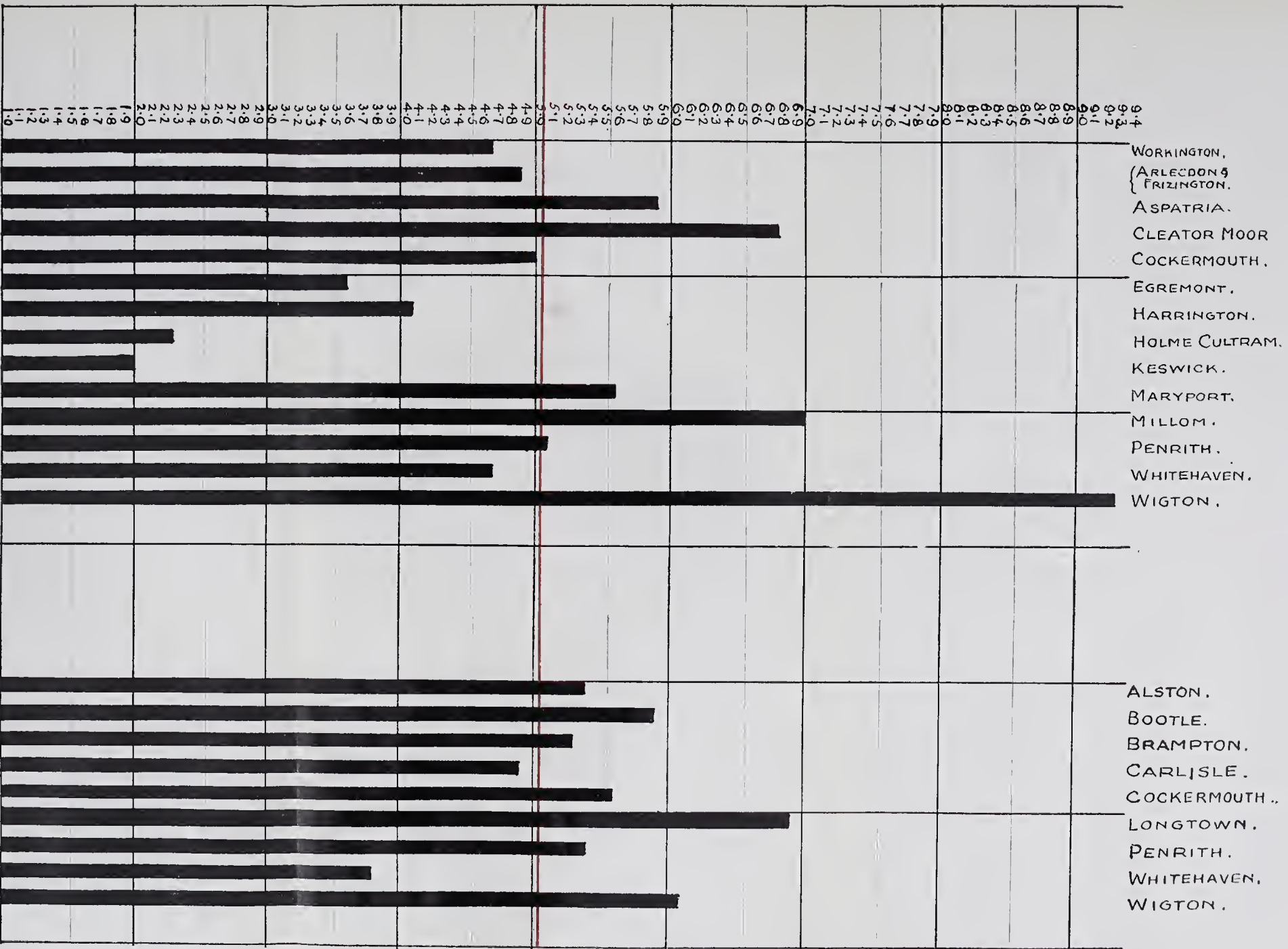
AVERAGE MATERNAL DEATHS PER 1,000 BIRTHS FROM PUERPERAL SEPSIS 1913-1927.
COUNTIES AVERAGE 1.2



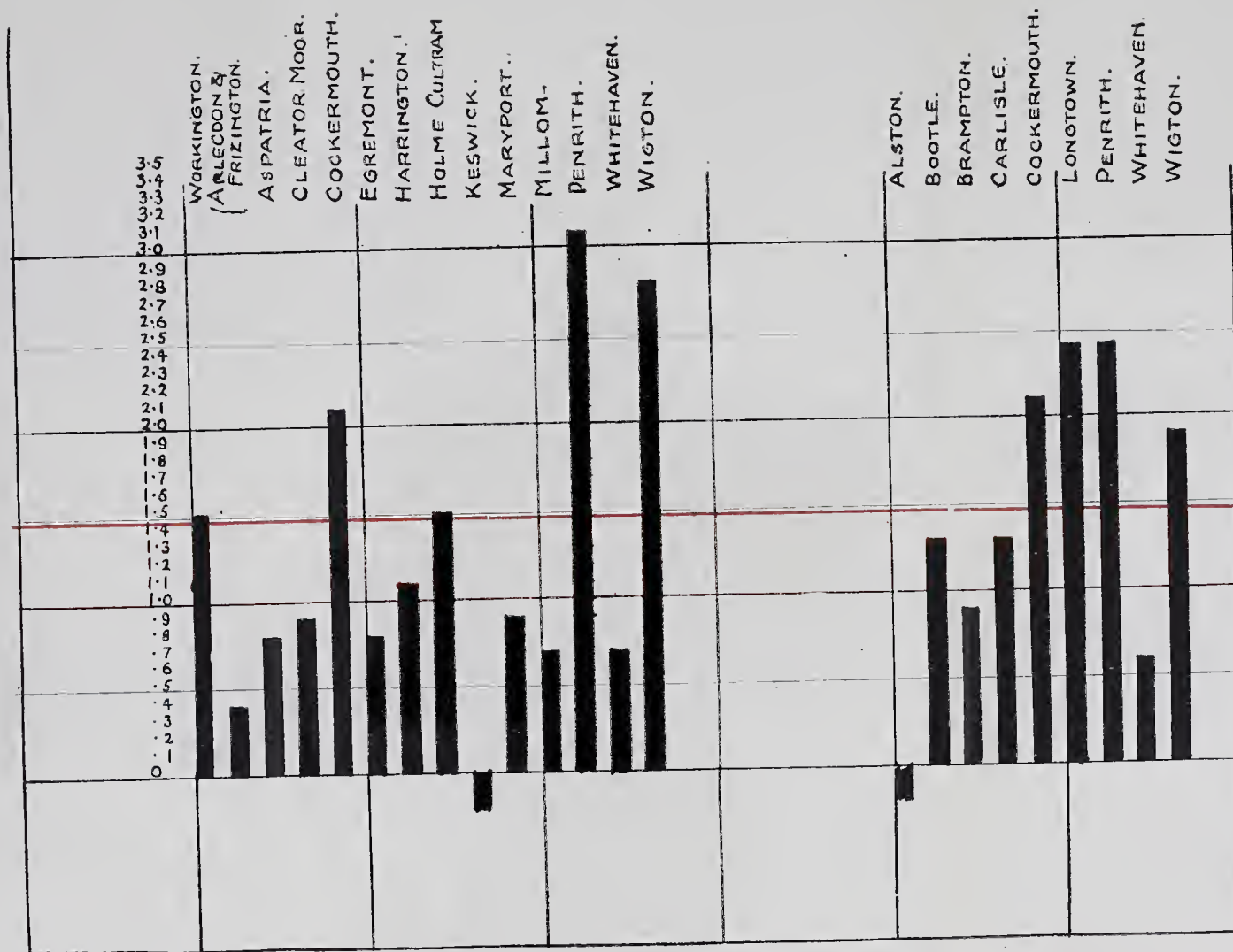


MATERNAL MORTALITY—ENGLISH COUNTIES

AVERAGE MATERNAL DEATHS PER 1,000 BIRTHS FROM ACCIDENTS OF PREGNANCY 1913-1927.
COUNTIES AVERAGE 2.5



MATERNAL MORTALITY. SANITARY DISTRICTS IN CUMBERLAND
 AVERAGE MATERNAL DEATHS PER 1,000 BIRTHS FROM ALL CAUSES 1913-1927
 AVERAGE FOR COUNTY 5.0



MATERNAL MORTALITY—SANITARY DISTRICTS IN CUMBERLAND
 AVERAGE MATERNAL DEATHS PER 1,000 BIRTHS FROM PUERPERAL SEPSIS 1913-1927
 AVERAGE FOR COUNTY 1.4

health in any real sense to pregnant women? We find the answer in the case of young women who have been fortunate enough to enjoy both a healthy heritage and environment. They find during pregnancy abounding health, enhanced vitality.

But with vast numbers of women at present this is not the case, for though pregnancy is not an illness it is an added strain, a call on the reserves. If the reserves are there it means enhanced life, as does special call for effort to a young athlete. If the reserves are small or lacking it must drain away some of the small store of vitality, and in such cases each succeeding pregnancy leaves a less efficient mother. As a leading obstetrician has said, "Pregnancy is a searching test of the functional soundness and structural integrity of the woman's whole body." It is a test which is being carried out before our eyes whenever we care to observe, and it has shown us on the one hand the functionally sound pregnant woman tingling with enhanced life, while her less fortunate sister groans under a burden which makes life too heavy a load to bear. The healthy woman says she never felt so well in her life; the over-tired working woman would, in many cases, gladly seize any opportunity to escape the burden of successive pregnancies. The problem of healthy motherhood is a larger one than can be met by purely medical means, important as they are, for the present high rate of morbidity and mortality has its roots deep down in conditions which influence heredity and widely spread in those social conventions which have made civilized nations content that a majority of their citizens should live without adequate arrangements for housing, nutrition, and exercise.

The problem before us, therefore, is threefold: it is influenced (1) by the heredity and upbringing of the mother herself; (2) by the conditions in which she lives—her environment; (3) by the care given to her during the critical times of pregnancy and parturition.

(1) The health of the mother carries us back to her own childhood and beyond, and reminds us that the work for infant welfare to-day will influence the pregnancies of twenty to thirty years hence. For a healthy mother means that she was born of healthy parentage and was naturally fed; that she was early trained in healthy habits and clad in suitable clothes; that she learned to enjoy

outdoor exercise and to live in rooms which had abundance of fresh air, and that she was given occupation for mind and hands; that she had, in fact, those conditions which work for child welfare aims to secure for all children to-day.

These things will have abolished the dangers to child-bearing that arise from faulty nutrition and bad habits. They will have ensured the full and healthy development of bone and muscle, of chest and lungs. The woman will naturally breathe deeply; she will therefore use large supplies of oxygen for herself and the child; she will be accustomed to excrete fully all the poisons of her own body by active lungs, skin, bowels and kidneys; she will, therefore, be less likely to accumulate any poisonous products from herself or the child. By the healthy use of brain and muscle she is fortified in advance to meet the call upon nervous and muscular energy made by pregnancy and parturition, and thereby what is regarded by some as nine months of endurance may become a time of heightened vitality unknown at other periods of life. To discuss the problem of heredity as it stretches far back into the ages would be impossible here and must be left to the discussion on eugenics, but we are doing work to-day for infancy which will affect maternity of the future. Hopeful though that may be for the coming generation it reminds us that dealing with the present generation of mothers we are unable to touch one important factor in the well-being of themselves and their children, viz., the heredity and *early* environment of the mother.

(2) The problem of her present environment thrusts upon us some of the most burning social questions of the day, viz., housing, water supply, nutrition, &c.

The Royal Commission on Housing, 1885, pointed out three evils of bad *housing* which have a very direct bearing on the health of the mother and her unborn child. They found that:—(a) Poor housing diminished personal cleanliness and physique; (b) the sickness rates were high in such dwellings; (c) the death-rates were higher than in more favoured localities

Nutrition of the mother implies food in suitable quantity and quality, that is, a due proportion of proteins, carbohydrates, fats, salts, and last but not least, vitamins. A plain nourishing mixed diet with a plentiful supply of

milk and cereals is the best. Wholemeal bread is better than white bread; freshly cooked meat is good, but a large quantity of meat is unnecessary and probably undesirable; fresh vegetables, rice, barley and other cereals, e.g., oatmeal porridge, lentil soups, butter beans, &c., can all be used with the addition of small quantities of meat or cheese to make savoury and nourishing dishes at small cost. Suet puddings, semolina, milk and milk puddings of all kinds, stewed fruit, preserves and dripping are also useful to supplement these. Pickles, strongly seasoned, and rich foods of all kinds, tinned foods, and the special things which cause indigestion to the individual woman should be avoided. Beer, stout and spirits are not good. They are not foods, i.e., they afford no nourishment, but they stimulate and cause more wasteful expenditure of resources of the body. They also throw more strain on the kidneys, which already have more than their usual work to do.

Closely associated with diet is the importance of securing the daily action of the bowels, and this is best attained by an ample supply of fruit and vegetables in the food. But the ingestion of food is not necessarily nutrition. Nutrition depends on healthy digestion, absorption and assimilation, and these in turn are dependent upon care of the teeth, rest and exercise, fresh air, and hence oxygen and adequate excretion. . . .

(3) There remains for us to consider point three—the special care given to the mother during the critical times of pregnancy and parturition. We have in existence three great midwifery services, which are filled by midwives, general practitioners and consultants respectively. Let us consider how each should contribute to the care of the woman during pregnancy; other speakers will deal with their respective rôles during parturition and the puerperium.

The midwife has the great advantage of being first in touch with the prospective mother, and the higher education of the midwife, the better conditions of her service, which will ensure the best class of women, are important factors in the efficient home visiting and teaching of every mother. But we believe that every mother ought to have not merely the care of the midwife, who will attend her in normal labour, but the advantage of at least one careful examination by a doctor to ensure that

she is a woman of normal health, and that no special conditions are present which are likely to complicate labour. The simplest solution for this desirable result is already being found in the ante-natal clinics which are being established so rapidly. At these clinics women can be examined early in pregnancy, and those whose health is at all doubtful can be kept under constant medical supervision. But for the perfecting of this system the more highly-equipped hospital consultative clinics are essential, where all doubtful cases may be sent for the opinion of specialists, for the careful examination of urine, blood, &c., by skilled pathologists, and where beds for the observation of pregnancy illness are available for all women needing them."

Housing (Rural Workers) Act, 1926,

Since the inception of the Housing (Rural Workers) Act, 1926, the Council have received applications in respect of 94 dwellings, and assistance has been sanctioned in all cases with the exception of one. In the case of 14 of these dwellings the applicants have withdrawn their applications. Grants amounting to £4,038 and loans amounting to £50 have been promised.

Up to the time of writing this Report the Council have actually paid £1,403 by way of grants and £50 by way of loan. Applications for assistance continue to be received, but as the Act is due to expire on the 1st October, 1931, it is hoped that before that date property owners will endeavour to take every advantage of the facilities afforded by the provisions thereof.

Inspection and Supervision of Food.

The following is a copy of the County Analyst's Report for the year 1928:—

1. During the 12 months ended the 31st December, 1928, I have analysed 316 samples of Food and Drugs submitted by the Inspectors appointed under the sale of Food and Drugs Acts, for the County of Cumberland, viz.:—

From Whitehaven Division	...	...	...	98
From Carlisle Division	...	...	...	50
From Workington Division	...	...	...	83
From Wigton Division	...	...	...	27
From Penrith Division	...	...	...	58
Total	...	...	...	<hr/>316 <hr/>

The number of samples submitted is fewer by 18 than for the corresponding period ended the 31st December, 1927.

2. The following table affords a general summary of the result of the analysis of these samples, together with the action taken in the case of those samples found to be other than genuine and the outcome of such action:—

Samples of Milk submitted for analysis ...	218
Samples of other articles	98
Total ...	316
No. adulterated or below standard ...	32
„ of doubtful quality	0
„ of Appeal samples	6
„ of samples taken “on delivery” ...	2
„ of persons cautioned	6
„ of persons summoned	5
„ of persons convicted	0
„ of persons discharged	3
„ of persons to pay costs	0
„ of cases in which no action taken ...	21
„ of cases withdrawn	2
„ of cases pending at end of year ...	0
Amount of Fines	None
Amount of Costs	None

As compared with the 12 months ended the 31st December, 1927, in which 11 persons were summoned, of whom 6 were convicted, 5 discharged, there have been no convictions in 1928, but 3 persons have been discharged and 2 summonses have been withdrawn; there are no cases pending for the period under review.

3. The percentage of adulteration for the year is 10.39; for the 12 months ended the 31st December, 1927, it was 12.78. In each case all samples which have been reported as not being of genuine quality are included, but appeal and reference samples are not included.

4. The only article in respect of which proceedings have been instituted is Milk, the whole of the other samples being of genuine quality.

5. Of the 218 samples of Milk submitted during the 12 months, 32 were returned as being adulterated or below standard, while 6 samples were taken as appeal to the cow samples, and 2 samples as reference samples in course of delivery; the balance of 178 samples were found to be genuine.

Excluding the appeal and reference samples the percentage of adulteration for Milk is 15.23; for the previous 12 months the figure was 20.30, which is a satisfactory result.

The average figures for Non-fatty Solids and for Fat in the genuine samples, 178 in number, were as follows:—

Non-fatty Solids	8.81%
Fat	3.64

The average figures for 157 genuine samples analysed during 1927 were:—

Non-fatty Solids	8.84%
Fat	3.73

Comparison between these figures indicates the consistent quality maintained, although the figure for Fat for 1928 is slightly lower than in 1927.

Of the 6 appeal and 2 reference samples taken during the year, 4 appeal samples were genuine and 2 deficient in Fat, while both reference samples were deficient in Fat.

6. It is satisfactory to note that in no case was it necessary to report adversely on any samples under the requirements of the Public Health (Preservatives, etc., in Food) Regulations, 1925/27.

Amongst the 98 samples other than Milk submitted for analysis during the year there were 41 which experience has shown to be likely to contain preservative, and these samples were distributed as follows:—

Beverages	...	...	...	...	...	4
Butter	...	...	...	...	...	11
Cornflour	..	...	...	...	...	7
Dried Fruits	...	...	...	...	...	7
Jam	...	...	...	...	...	4
Margarine	...	...	...	...	...	4
Minced meat	...	...	...	...	...	1
Pickles	...	...	...	...	...	1
Sponge Fingers	...	...	...	...	...	2
						<hr/> 41 <hr/>

In no case was the addition of any prohibitive preservative detected nor, in the case of those articles to which a prescribed preservative may be added up to a stated maximum, was any excess of the appropriate preservative found.

7. Apart from the above comments the work of the past year calls for no further observation.

(Signed) CYRIL J. H. STOCK,
28th December, 1928. County Analyst.

Prevalence of, and Control over, Infectious Disease.

No case of Smallpox occurred in the County area during the year.

Scarlet Fever.

During the year 185 cases of Scarlet Fever were notified (76 in Urban and 109 in Rural Districts), compared with 336 cases the previous year.

The disease continues to be of a very mild type, only one death having occurred.

Diphtheria.

During the year 179 cases were notified (122 in Urban and 57 in Rural Districts), compared with 220 cases the previous year.

From this disease there were 11 deaths (4 in Urban and 7 in Rural Districts), compared with 11 the previous year.

It is worthy of note that in the Brampton Rural area, where in 1926 the Schick test and immunisation was so extensively carried out, there were no notifications of Diphtheria during 1928, although for several years prior to 1926 the disease had been almost endemic.

Enteric Fever.

Twelve cases were notified during the year, 1 in Cockermouth, 1 in Maryport, and 1 in Workington Urban Districts, and 6 in Cockermouth and 3 in Penrith Rural Districts, although there appear to have been 5 cases.

Two deaths occurred in the Penrith Rural District.

In commenting on these slight outbreaks the Medical Officer of Health (Dr. Mason) of the Cockermouth Rural District says:—"In September I was called in by a doctor attending a suspicious case of Typhoid Fever. Laboratory tests confirmed the clinical appearances. The case was immediately removed, by arrangement, to the Infectious Diseases Hospital, Workington. This case (a man of 38 years, a widower) had five children and a daughter's baby living with him. Three days after his removal to hospital two daughters (13 and 11 years respectively) took ill and were immediately removed to hospital. Two days after this another daughter (17 years), who was temporarily staying at Dean Cross, was discovered ill, and was also removed to hospital. Again, later, the eldest daughter (18 years) was removed to hospital with the same disease. A daughter of nine and the baby remained.

The man returned home after a stay of 8 weeks, and the remaining daughter of nine years developed Typhoid afterwards.

The original case, according to his statement, had had an attack of Typhoid Fever twenty years ago, and it is possible that he had harboured the bacillus all this time and there was a recrudescence. The other cases were the outcome of this infection. Unfortunately there is no really satisfactory way at present of dealing with this type of carrier. The epidemic was confined to the family (another member of the family also developed the disease,

but his permanent address was in another district), and although several of the cases were dangerously ill, no case terminated fatally."

The Medical Officer of Health (Dr. Haswell) of the Penrith Rural District says:—

"The history of this limited outbreak of five cases is interesting and tragic. On April 18th a farmer's wife was notified at Glassonby and removed to Carlisle Infirmary, the date of onset being April 3rd. On April 20th the place was visited and the house found quite satisfactory; as a result of defects in the village water supply at the time a local spring had been used. This was certainly liable to pollution, but analysis showed no organisms of the coli-typhoid group. On April 22nd a daughter was notified as suffering from the same disease, and was removed to the Fever Hospital. On May 4th a son began with the same disease, and also was removed. The medical history of all the house inhabitants was gone into, and some doubt developed as to the condition of a farm servant, age 30, who had not long been with the farmer; his fæces and urine were sent for examination, and both found to contain bacilli of coli-typhoid group, consequently he was the carrier. On May 5th the farmer himself was ill, and with all the usual early Enteric symptoms with which he came to the Hospital. The carrier was now treated, and by the 8th June no bacilli could be found. As to the other cases, the two women died after a long and patient illness, one at Carlisle and one at Penrith; the father and son recovered."

Puerperal Fever and Puerperal Pyrexia.

During the year 5 cases of Puerperal Fever were notified, 2 in Cockermouth, 2 in Whitehaven, and 1 in Wigton Urban Districts.

There were, however, in the returns of the Registrar-General 1 death in each of the Cockermouth, Maryport, and Millom Urban Districts, and 1 in each of the Carlisle, Whitehaven, and Wigton Rural Districts. The cases in Maryport, Millom, and the three Rural Districts were obviously never notified.

As regards Puerperal Pyrexia, 30 cases were notified. In each case a form was sent to the medical practitioner who notified asking him to be good enough to state his opinion as to the cause of the Pyrexia, but in only 18 of

the cases was the request complied with. The cause, as stated, was as follows:—Adherent Placenta 3, Mastitis 1, Chill 3, Phlebitis 1, Influenza 1, Toxamia 1, Broncho-Pneumonia 1, Primitus Vulvae 1, Gonocchal Infection 1, Retained Membranes 1, Bruising and Sloughing of Vaginal Mucosa 1, Unknown 3.

Measles.

No deaths from Measles were recorded during the year 1928. This is the first year during the past 21 years I have had the satisfaction of recording that no fatalities occurred from this dangerous infectious disease amongst children under 5 years of age.

Whooping Cough.

Caused 22 deaths (17 in Urban and 5 in Rural Districts), against 30 the previous year.

Diarrhœa.

Caused 33 deaths (19 in Urban and 14 in Rural Districts), against 6 in the previous year.

Influenza.

Although fairly prevalent in some areas of the County was generally of a mild type. 60 deaths were recorded from this cause (36 in Urban and 24 in Rural Districts).

Ophthalmia Neonatorum.

18 cases were notified. All were visited as soon as possible by a Health Visitor. All recovered without any impairment of vision.

Tuberculosis.

Particulars of new cases of Tuberculosis and of all deaths from the disease during 1928 are here given:—

Age. Periods.	New Cases.		Deaths.							
	Pulmonary.	Non-Pulmonary.	Pulmonary.	Non-Pulmonary.	M.	F.	M.	F.	M.	F.
0	—	—	1	1	1	—	—	—	1	1
1	—	4	9	8	—	—	—	—	2	5
5	15	14	9	5	2	4	—	—	2	—
10	7	11	10	3	4	3	—	—	4	—
15	12	11	10	8	5	9	—	—	1	3
20	17	14	3	2	13	11	—	—	1	1
25	20	16	8	4	18	12	—	—	—	1
35	11	15	—	—	7	16	—	—	1	—
45	8	5	2	3	13	5	—	—	—	2
55	7	8	—	1	5	8	—	—	1	—
65 & upwards	2	3	—	1	8	2	—	—	—	1
Totals	99	101	52	36	76	70	13	14		

Arranged in the order of their death-rates from Pulmonary Tuberculosis the Urban and Rural Districts stand thus:—

<i>Urban.</i>	<i>Rural.</i>
Arlecdon and Frizington ... 1.6 (1.4)	Cockermouth ... 0.5 (0.4)
Cleator Moor ... 1.6 (1.3)	Penrith 0.5 (0.5)
Cockermouth ... 1.2 (0.6)	Brampton 0.4 (0.2)
Whitehaven ... 1.1 (0.9)	Bootle 0.3 (0.8)
Egremont 0.9 (1.4)	Carlisle 0.3 (0.3)
Aspatria 0.8 (0.2)	Whitehaven ... 0.2 (0.5)
Millom 0.8 (1.6)	Wigton 0.2 (0.4)
Workington ... 0.8 (0.9)	Longtown 0.1 (0.4)
Harrington ... 0.6 (0.2)	Alston Nil (0.7)
Maryport 0.6 (0.3)	
Holme Cultram. 0.4 (0.6)	
Keswick 0.2 (Nil)	
Wigton 0.2 (0.2)	
Penrith 0.1 (0.9)	

The death-rate from Pulmonary Tuberculosis in 1928 throughout the County was 0.6 per 1,000 of the population, 0.1 per 1,000 lower than last year.

Arranged in the order of their death-rates from all forms of Tuberculosis (including Pulmonary) the Urban and Rural Districts stand thus:—

<i>Urban.</i>	<i>Rural.</i>
Arlecdon and Frizington ... 2.0 (1.6)	Penrith 0.7 (0.6)
Cleator Moor ... 1.8 (1.3)	Bootle 0.5 (1.1)
Cockermouth ... 1.5 (1.2)	Carlisle 0.5 (0.5)
Whitehaven ... 1.2 (1.0)	Cockermouth ... 0.5 (0.5)
Workington ... 1.2 (1.0)	Whitehaven ... 0.5 (0.8)
Aspatria 1.1 (0.2)	Brampton 0.4 (0.2)
Egremont 1.1 (1.7)	Wigton 0.3 (0.5)
Harrington ... 0.9 (0.6)	Longtown 0.1 (0.4)
Maryport 0.8 (1.2)	Alston Nil (1.1)
Wigton 0.8 (0.5)	
Keswick 0.7 (0.2)	
Holme Cultram. 0.4 (0.6)	
Penrith 0.3 (1.1)	

As regards notification my returns show that there were 173 deaths from Tuberculosis during 1928.

Of these 27 were not notified prior to death, and the remainder were notified in the periods set out below :—

22	were notified from	1 to 7	days before death.
9	were notified from	8 to 14	days before death.
13	were notified from	15 to 30	days before death.
25	were notified from	1 to 3	months before death.
16	were notified from	4 to 6	months before death.
24	were notified from	7 to 12	months before death.
14	were-notified from	1 to 2	years before death.
23	were notified from	over 2	years before death.

The discrepancy in the figures is accounted for by “transferable deaths.”

Tuberculosis in this County is undoubtedly on the decrease.

This is shown by the fall in the number of annual notifications and by the fall in the annual death-rate. No comparison can usefully be made with the period prior to the year 1912, because it was not until that year that notification of the disease became compulsory.

The death-rate from all forms of Tuberculosis, that is to say, the number of deaths per 1,000 of the population, has fallen from 1.3 in 1912 to 0.8 in 1928.

In 1928 there actually were 178 deaths from all forms of Tuberculosis, but had the death-rate remained at the 1912 figure the total number of deaths would have been 285.

The notification returns also confirm the decrease, as the following Table shows :—

NOTIFICATIONS OF PULMONARY TUBERCULOSIS.

In 1924 there were 261 notifications.

In 1925 there were 252 notifications.

In 1926 there were 250 notifications.

In 1927 there were 220 notifications.

In 1928 there were 200 notifications.

These figures are really very much more striking than would appear at first sight, because the search for Pulmonary Tuberculosis is now very much more intensive.

The examination of contacts, that is, those who have been intimately exposed to infection from a case of Pulmonary Tuberculosis, is really a post-war development and is expanding yearly.

The Staff of Tuberculosis Officers during 1928 examined 1,308 contacts. Among these contacts were found 87 definite but early cases of Tuberculosis, and when it is appreciated that out of the 200 cases notified in 1928 87 were *looked for* the importance of the evidence which the fall in the annual number of notifications contributes will be realised.

In addition to the 87 early cases discovered, 114 suspicious cases were noted, all of which will be re-examined at least once a year, because, so far as possible, all contacts are examined yearly throughout the County.

In spite, however, of the decrease in the notifications and the decrease in the death-rate, I am still far from satisfied that the *rate* of decrease is as rapid as it ought to be.

The line of attack on the Tuberculosis problem, so far as Pulmonary Tuberculosis is concerned, lies in the prevention of new cases by the segregation of the infectious case or the removal of contacts from the infected home, and in the discovery of infected persons at the very earliest possible moment, and as regards surgical Tuberculosis, the line of attack is in the provision of milk free from tubercle.

Criticism is continually being directed against the County Council and this Department for not sending a greater number of cases for Sanatorium treatment.

I desire to repeat what I have previously stated on many occasions, that I am absolutely opposed to sending a case away for Sanatorium treatment unless, in the opinion of the Tuberculosis Officers and myself, there is at least a reasonable prospect of cure or of sufficient arrest of the disease to materially prolong life or maintain for a reasonable period working capacity. The only exception lies in the removal of cases which in themselves are hopeless, to eliminate infection from an overcrowded home. This last point, of course, is not properly a Sanatorium case at all, and should be provided for otherwise. I maintain that to send in other classes of cases than the above, however strong the pressure brought by interested persons to secure this object, serves no useful purpose, and is in fact an unjustifiable waste of public money.

I repeat that, if any permanent good is to be derived from Sanatorium treatment, the cases must be sent there for treatment at the earliest possible stage.

Perhaps criticism on this point would be less persistent if it were realised that each year considerably over half the deaths occur among cases brought to our notice for the first time 6 months or less before death, and, in fact, incredible though it may appear, in a considerable proportion of the cases the first information we receive about the case is a notification of death.

The following Table gives the annual percentage of the cases who were notified less than 6 months before death or who were not notified at all before death:—

In 1926 65% of the deaths.

In 1927 61% of the deaths.

In 1928 65% of the deaths.

Public Health (Prevention of Tuberculosis) Regulations, 1925.

No action has been taken, and so far as I am aware none has been necessary under these Regulations.

Public Health Act, 1925.

No action has been taken under Section 62 for the compulsory removal to hospital of anyone suffering from Tuberculosis.

Memo. 37/T.: Table I.

Form T.53.

TUBERCULOSIS SCHEME OF THE CUMBERLAND COUNTY COUNCIL.

Return showing the Work of the Dispensary (or
Dispensaries) during the year 1928.

DIAGNOSIS.	PULMONARY.				NON-PULMONARY.				TOTAL.			
	Adults.		Children.		Adults.		Children.		Adults.		Children.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
A.—New Cases examined during the year (excluding contacts):—												
(a) Definitely tuberculous	54	40	11	16	7	3	20	13	61	43	31	29
(b) Doubtfully tuberculous ... ..	...	...	...	...	...	...	...	...	3	5	7	6
(c) Non-tuberculous ..	...	...	...	...	...	...	...	...	22	16	27	20
B.—Contacts examined during the year:—												
(a) Definitely tuberculous	2	2	5	7	...	...	2	1	2	2	7	8
(b) Doubtfully tuberculous ... ..	...	...	...	...	...	...	...	...	1	...	19	18
(c) Non-tuberculous ..	...	...	...	...	...	...	...	...	28	28	319	295
C.—Cases written off the Dispensary Register as												
(a) Cured	4	7	6	4	1	2	7	4	5	9	13	8
(b) Diagnosis not confirmed or non-tuberculous (including cancellation of cases notified in error) ...	...	...	...	...	...	...	...	...	57	51	382	344
D.—Number of persons on Dispensary Register on December 31st:—												
(a) Diagnosis completed	237	166	80	73	12	10	51	39	249	176	131	112
(b) Diagnosis not completed ... ..	...	...	...	...	...	...	...	...	5	6	16	15

1. Number of persons on Dispensary Register on January 1st	742
2. Number of patients transferred from other areas and of "lost sight of" cases returned	23
3. Number of patients transferred to other areas and cases "lost sight of"	97
4. Died during the year	81
5. Number of observation cases under A (b) and B (b) above in which period of observation exceeded 2 months	33
6. Number of attendances at the Dispensary (including Contacts)	2511
7. Number of attendances of non-pulmonary cases at Orthopædic Out-stations for treatment or supervision	194
8. Number of attendances at General Hospitals or other Institutions approved for the purpose of patients for	
(a) "Light" treatment	—
(b) Other special forms of treatment	1
9. Number of patients to whom Dental Treatment was given, at or in connection with the Dispensary ...	—
10. Number of consultations with medical practitioners:—	
(a) At Homes of Applicants	26
(b) Otherwise	34
11. Number of other visits by Tuberculosis Officers to Homes	161
12. Number of visits by Nurses or Health Visitors to Homes for Dispensary purposes	1092
13. Number of	
(a) Specimens of sputum, &c., examined	181
(b) X-ray examinations made in connection with dispensary work	48
14. Number of Insured Persons on Dispensary Register on the 31st December	289
15. Number of Insured Persons under Domiciliary Treatment on the 31st December	90
16. Number of reports received during the year in respect of Insured Persons:—	
(a) Form G.P. 17	98
(b) Form G.P. 36	47

TUBERCULOSIS SCHEME OF THE CUMBERLAND COUNTY COUNCIL. RESIDENTIAL INSTITUTIONS.

(A) Average Number of Beds Available for Patients during the Year 1928.

	Observation.	Pulmonary Tuberculosis.			Non-Pulmonary Tuberculosis.		Total.
		"Sanatorium " Beds.	" Hospital " Beds.	Diseases of Bones & Joints.	Other Conditions.		
Adult Males	—	8	2	...	...	10
Adult Females	—	6	2	...	...	8
Children (under 15) ...	—	11	1	...	...	25
Total	—	25	5	...	...	43

30

(B) Return showing the Extent of Residential Treatment during the year 1928.

Number of Patients		In Institutions on Jan. 1.		Admitted during the year.	Discharged during the year.	Died in the Institution.	In Institutions on Dec. 31.
		M.	F.				
Adults	M.	6	9	37	31	—	12
	F.	...	...	23	19	1	12
Children	M.	12	...	17	21	2	6
"	F.	9	...	21	19	—	11
Total		36	...	98	90	3	41

Table III.

RETURN showing the Immediate Results of Treatment of Patients Discharged from Residential Institutions during the year 1928.

Classification on admission to the Institution.	Condition at time of Discharge.	Duration of Residential Treatment in the Institution.													
		Under 3 months.			3—6 months.			6—12 months.			More than 12 mths.			Total.	
		M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.		
Pulmonary Tuberculosis.	Class T.B. minus.	Quiescent ... ..	...	...	...	1	1	14	...	...	2	...	...	...	18
		Improved	3	...	...	10	5	...	3	...	5	...	...	...	26
		No Material Improvement	1	1	1	...	...	...	1	...	...	...	...	...	4
		Died in Institution ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...
Pulmonary Tuberculosis.	Class T.B. plus Group 1.	Quiescent ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...
		Improved ... ..	...	...	...	...	...	...	...	1	1	...	...	...	2
		No Material Improvement ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...
		Died in Institution ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...
Pulmonary Tuberculosis.	Class T.B. plus Group 2.	Quiescent ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...
		Improved ... ..	...	1	...	4	4	...	4	3	...	...	...	...	16
		No Material Improvement	1	...	...	...	1	...	...	...	...	...	...	...	2
		Died in Institution ... ..	...	1	...	...	...	...	...	...	...	...	...	...	1
Pulmonary Tuberculosis.	Class T.B. plus Group 3.	Quiescent ... ..	...	...	...	2	...	...	...	...	...	...	...	...	...
		Improved ... ..	...	...	...	2	...	...	...	...	...	...	...	...	2
		No Material Improvement ... ..	...	1	...	...	1	...	...	...	1	...	...	...	3
		Died in Institution ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...
Tuberculosis, Bones and Joints.		Quiescent or Arrested ... ..	...	...	1	...	...	1	...	...	...	...	2	...	4
		Improved ... ..	...	...	...	...	...	2	...	...	3	...	...	...	12
		No Material Improvement ... ..	...	...	...	...	...	...	...	...	1	...	...	...	1
		Died in Institution ... ..	...	...	...	...	...	...	...	...	1	...	1	...	2

PUBLIC HEALTH (VENEREAL DISEASES) REGULATIONS, 1916.

Report of the Assistant Medical Officer of Health (Venereal Diseases) for the Year ended 31st December, 1928.

During the year 513 persons were dealt with at the Treatment Centres at Carlisle and Whitehaven, of whom 328 attended for the first time, and 22 were re-admitted suffering from the same infection after ceasing to attend or after having been transferred to other Centres in a previous year.

Of all cases 109 were found not to be suffering from Venereal Disease, leaving 404, an increase of 23 in the total number under treatment or observation for Venereal Diseases as compared with the year 1927.

The attendances at the Medical Officers' Clinics were 3,409, an increase of 439, while the attendances for Intermediate Treatment were 1,574, an increase of 314.

The total attendances were 4,983.

These figures are the highest recorded in any year since the Clinics were opened in 1919.

The remarkable increase in attendances at the Whitehaven Clinic is referred to under that heading.

County or County Borough in which Patients resided.				New Patients.		Attendances all patients.
Cumberland	...	...	...	180	...	1628
Carlisle	...	...	...	126	...	3190
Cheshire	...	...	...	1	...	2
Hertfordshire	...	...	...	1	...	1
Kent	...	...	...	2	...	10
Leeds	...	...	...	1	...	1
Leicester	...	...	...	1	...	1
London	...	...	...	1	...	7
Newcastle	...	...	...	4	...	13
Preston	...	...	...	1	...	8
Westmorland	...	...	...	3	...	64
Lancashire	...	...	...	1	...	2
Scotland	{	Dumfries	...	0	...	2
		Dumfriesshire	...	2	...	47
		Edinburgh	...	1	...	1
		Glasgow	...	1	...	4
		Lanark	...	1	...	1
Ireland	...	...	...	1	...	1
				328	...	4983

Pathological Examinations.

Wassermann tests were carried out at the Public Health Laboratory, Manchester. 340 of these were done for patients attending the Clinics and 63 for patients under private treatment by practitioners in Cumberland and Carlisle.

In addition 99 Bacteriological examinations were made by the Medical Officer at the Clinics and 45 at Manchester.

Approved Arsenobenzene Compounds.

These were supplied free to any of the practitioners on the approved list who applied. The number of those issued in this way was 64.

At the Clinics 1,462 doses were administered, nearly all by the intravenous method.

Of these 540 were for patients residing in Carlisle. 865 for those residing in Cumberland, and the remaining 57 were given to patients from other areas.

Treatment Centres.

1. *Carlisle.*

The same premises were in use at the Cumberland Infirmary, and there were no alteration in the hours of the Clinics. It is understood that the old out-patient Department at the Cumberland Infirmary is to be placed at the disposal of the Joint Venereal Diseases Sub-Committee for the purpose of a Venereal Diseases Clinic, but although, at the time of writing, it is vacant, the Secretary of the Infirmary is unable to say what accommodation there will be. He has been requested to give this information as soon as possible in order to avoid the delay entailed in having the plans for alteration submitted to the Ministry of Health for approval.

The rooms at present in use require painting, distempering, etc., but it is inadvisable to spend money on this until it can be definitely ascertained how long the occupation of these rooms is to continue.

During the year 337 patients were dealt with, an increase of 26 compared with the previous year. 204 attended for the first time, and 20 were re-admitted, making 224, an increase of 36. The total attendances were 3,855, an increase of 486.

Of the new cases 107 were suffering from Gonorrhœa, compared with 85 in 1927 and 56 in 1926, while the new cases of Syphilis were 35, compared with 39 in 1927 and 40 in 1926. Thus it is evident that Gonorrhœa is spreading with alarming rapidity in the neighbourhood of Carlisle, while Syphilis has been definitely checked.

797 doses of Arsenobenzene Compounds were given and 200 Wassermann tests were carried out.

2. *Whitehaven.*

Clinics were held at the Whitehaven and West Cumberland Hospital at the same hours as in former years, but owing to the large increase in the numbers attending it has been necessary to extend the evening Clinic considerably and shorten the interval between the Clinics. The available time is now fully occupied, and if the attendances continue to increase it will be necessary to make other arrangements.

As has been pointed out before, three rooms is the minimum number in which a satisfactory Clinic can be conducted. There are only two at Whitehaven. The result is that Consulting Room and Treatment Room have to be combined, and the second small room has to be used for a female examination room during the afternoon Clinic and for a male Gonorrhœa treatment room during the evening Clinic.

If a separate consulting room were available a great deal of time could be saved by having two patients in at once, so that one could be examined and notes taken while the other was being prepared for treatment by the Nurse.

Failing the provision of an additional room it will be necessary to adopt other measures if the attendances increase further. With the consent of the Whitehaven Hospital another day for Venereal Diseases work might be arranged. An alternative would be to open a Clinic at Workington, where the Tuberculosis Centre has already been partly equipped for one.

The number of patients dealt with during the year was 176, compared with 121 in 1927. The number of new cases was 124, compared with 110 in 1927, and there were two re-admissions.

The total attendances were 1,128, compared with 861 in 1927 and 733 in 1926. There being no intermediate treatment, all these cases received individual attention by the Medical Officer.

The new cases of Gonorrhœa were 26, an increase of one compared with the previous year. The new cases of Syphilis were 35, compared with 28 in 1927. This increase in the number of patients with Syphilis is partly accounted for by an outbreak more or less confined to the West of Cumberland. The sources of infection were stated as being at Whitehaven, Workington, and Maryport, but exact information was difficult to obtain. It was fairly obvious, however, that there was more than one infectious carrier in the neighbourhood, and that Syphilis was not contracted from the same source in all cases.

- It is hoped that this epidemic will soon be under control.

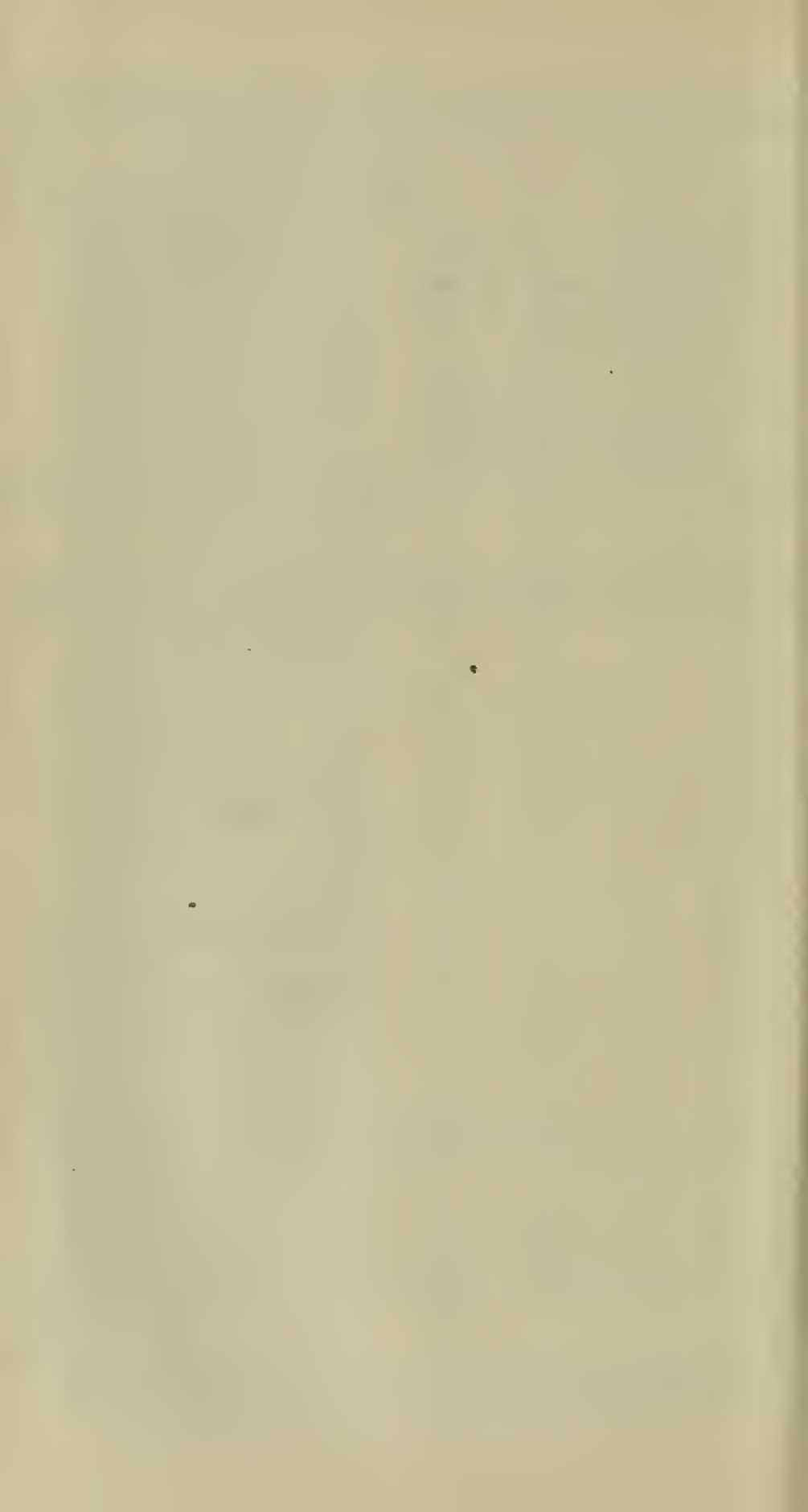
665 doses of Arsenobenzene Compounds were given, and 140 Wassermann Tests were carried out.

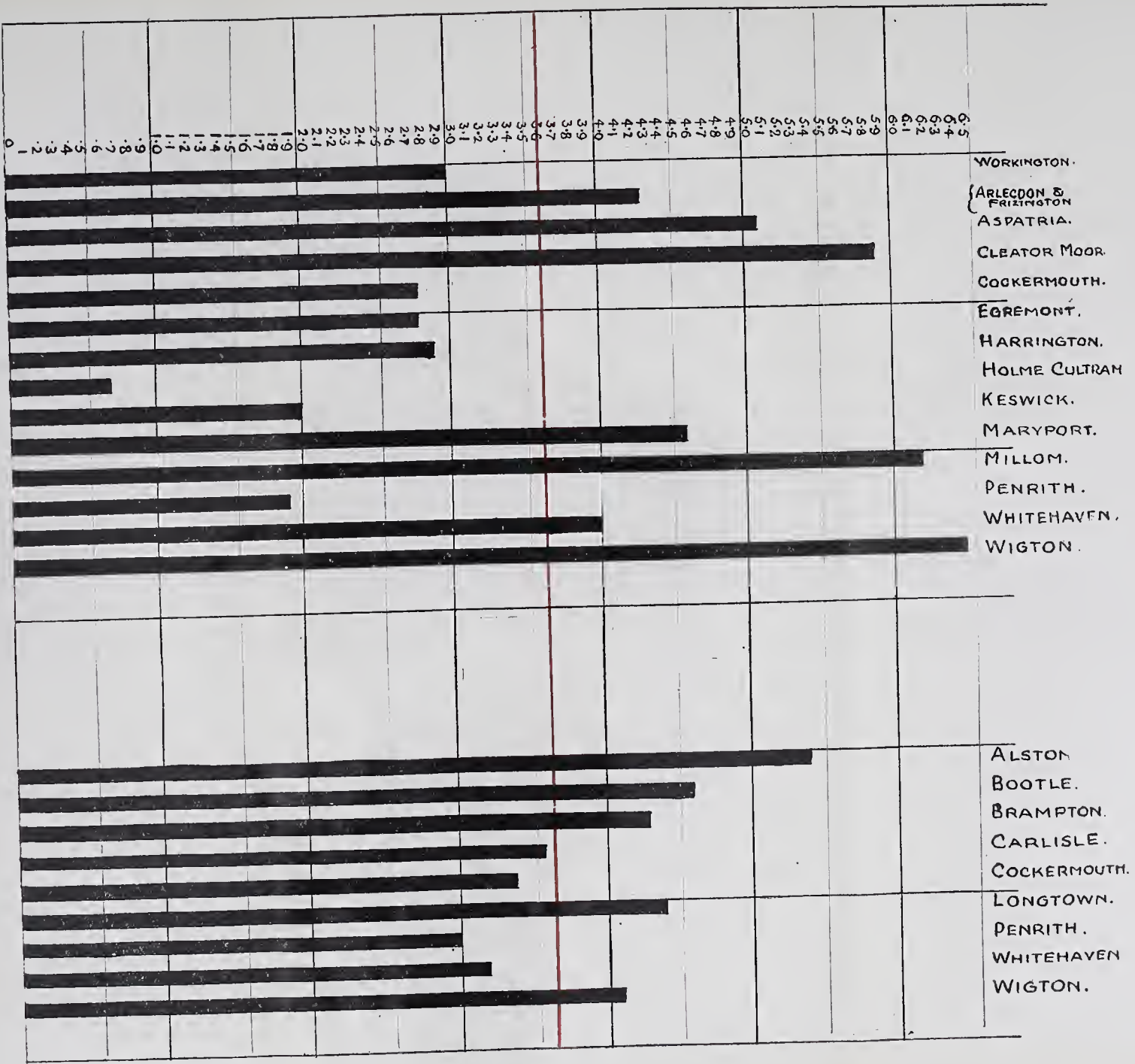
RETURN relating to all persons who were treated at the Treatment Centres at Carlisle and Whitehaven during the year ended the 31st December, 1928:—

	Syphilis.		Soft Chancre.		Gonorrhœa.		Conditions other than Venereal.		Total	
	M	F	M	F	M	F	M	F	M	F
1. Number of cases which—										
(a) at the beginning of the year under report were under treatment or observation for	61	35	...	1	51	13	1	1	113	50
(b) had been marked off in a previous year as having ceased to attend or as transferred to other Centres, and which returned to the Treatment Centre during the year under report suffering from the same infection	8	4	...	...	7	3	...	...	15	7
Total—Items 1 (a) and 1 (b)	69	39	...	1	58	16	1	1	128	57
2 (a). Number of cases dealt with at the Treatment Centre during the year for the first time	47	27	14	...	109	24	61	46	231	97
Total*—Items 1 (a), 1 (b) & 2 (a)	116	66	14	1	167	40	62	47	359	154
2 (b). Number of cases included in Item 2 (a) known to have received previous treatment at other Centres for the same infection	6	2	...	...	10	2	...	...	16	4
3. Number of cases which ceased to attend—										
(a) before completing the first course of treatment for	4	1	2	1	34	10	...	...	40	12
(b) after one or more courses but before completion of treatment for	26	14	...	...	...	...	...	...	26	14
(c) after completion of treatment, but before final tests as to cure of	7	1	2	...	24	5	...	...	33	6
4. Number of cases transferred to other Treatment Centres after treatment for	12	5	...	...	15	5	...	...	27	10
5. Number of cases discharged after completion of treatment and observation for	2	5	6	...	33	3	...	...	41	8
6. Number of cases which, at the end of the year under report, were under treatment or observation for	65	40	4	...	61	17	...	...	130	57
Total*—Items 3, 4, 5, and 6...	116	66	14	1	167	40	...	...	297	107
7. Out-patient attendances—										
(a) For individual attention by the Medical Officer	1188	757	42	...	1069	182	107	88	2406	1003
(b) For intermediate treatment, e.g., irrigation, dressings, &c. ...	..	...	14	...	1560	...	...	...	1574	...
Total Attendances	1188	757	56	...	2629	182	107	88	3980	1003
8. Aggregate number of "In-patient days" of treatment given to persons who were suffering from ... ..	...	...	...	...	...	...	...	...	...	...

* The total of Items 1 (a), 1 (b) and 2 (a) in the vertical columns headed Syphilis, Soft Chancre and Gonorrhœa should agree with the corresponding total of Items 3, 4, 5, and 6.

	For detection of			For Wassermann Reaction
	Spirochetes.	Gonococci.	Other Organisms.	
9. Examinations of Pathological material:—				
(a) Specimens which were examined at, and by the Medical Officer of, the Treatment Centre ... ..	...	96	3	...
(b) Specimens from persons attending at the Treatment Centre which were sent for examination to an approved laboratory	8	33	4	340





MATERNAL MORTALITY—SANITARY DISTRICTS IN CUMBERLAND

AVERAGE MATERNAL DEATHS PER 1,000 BIRTHS FROM ACCIDENTS OF PREGNANCY
1913-1927
AVERAGE FOR COUNTY 3.6

ative Areas in the County of Cumberland, 1928.

Port. D. 4	Millom. U.D. 25		Penrith. U.D. 26		Whitehaven. M.B. 27		Wigton. U.D. 34		Aggregate of U.D.'s.		Alston with Garrigill. R.D. 08		Booth. R.D. 09		Brampton. R.D. 18		Carlisle. R.D. 19		Cockermouth. R.D. 28		Longtown. R.D. 29		Penrith. R.D. 38		Whitehaven. R.D. 39		Wigton. R.D. 48		Aggregate of R.D.'s.			
	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
74 ...	49	49 ...	47	49 ...	140	113 ...	25	30 ...	759	118 ...	19	21 ...	29	34 ...	70	60 ...	71	89 ...	122	105 ...	39	26 ...	66	74 ...	90	70 ...	63	72 ...	569	551		
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2 ...	—	—	—	—	—	—	2	
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
—	—	1 ...	—	—	—	—	—	—	—	1 ...	—	—	—	—	1 ...	—	—	—	—	1 ...	—	—	—	—	—	—	—	—	—	3 ...	2	
—	—	—	—	—	2 ...	—	—	—	8 ...	9 ...	—	—	—	—	—	—	—	—	—	1 ...	—	—	—	2 ...	—	—	—	—	5 ...	2	2	
—	1 ...	—	2 ...	1 ...	5 ...	3 ...	1 ...	5 ...	3 ...	1 ...	—	—	—	1 ...	—	3 ...	1 ...	1 ...	4 ...	—	2 ...	—	1 ...	6 ...	2 ...	2 ...	—	—	16 ...	8	8	
—	—	—	—	—	—	—	—	—	20 ...	—	—	—	—	—	—	—	—	—	1 ...	—	—	—	—	—	—	—	—	—	1 ...	—	—	
—	—	—	—	—	1 ...	—	—	—	1 ...	1 ...	—	—	—	—	—	—	—	—	—	—	—	—	1 ...	—	—	—	—	—	—	—	1	
6 ...	3	3 ...	—	1 ...	18	6 ...	—	1 ...	57	46 ...	—	—	1 ...	1 ...	2	1 ...	1 ...	3 ...	2	9 ...	—	1 ...	3	3 ...	2	2 ...	—	2 ...	11	22	22	
2 ...	—	2 ...	—	2 ...	1	1 ...	1	1 ...	13	16 ...	—	—	—	5 ...	9	—	10	8 ...	10	11 ...	—	3 ...	3	11 ...	6	10 ...	5	11 ...	60	70	6	
10 ...	7	6 ...	8	9 ...	9	15 ...	3	2 ...	71	110 ...	4	3 ...	3	1 ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1 ...	1	7	
—	—	1 ...	—	—	—	—	—	—	—	3 ...	—	—	—	—	1 ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8	7	
2 ...	—	—	—	1 ...	2	2 ...	—	—	10	11 ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
6 ...	6	12 ...	1	1 ...	7	5 ...	4	1 ...	50	47 ...	1	1 ...	2	3 ...	11	9 ...	4	13 ...	4	6 ...	1	4 ...	5	4 ...	3	10 ...	6	10 ...	37	60	60	
18 ...	8	10 ...	10	11 ...	29	22 ...	3	6 ...	104	125 ...	2	4 ...	6	4 ...	14	14 ...	12	26 ...	21	13 ...	14	8 ...	8	14 ...	10	9 ...	7	16 ...	94	108	108	
—	—	—	6	2 ...	4	—	—	—	28	18 ...	2	—	—	4 ...	6	4 ...	7	4 ...	8	5 ...	2	2 ...	6	5 ...	5	8 ...	7	3 ...	43	35	35	
3 ...	4	8 ...	2	1 ...	11	8 ...	2	3 ...	47	46 ...	—	2 ...	2	1 ...	3	3 ...	1	1 ...	9	6 ...	2	2 ...	2	2 ...	3	2 ...	2	5 ...	24	24	19	
2 ...	4	—	1	5 ...	6	6 ...	—	1 ...	59	32 ...	1	2 ...	2	1 ...	4	2 ...	4	5 ...	11	6 ...	2	—	2 ...	2	1 ...	4	1 ...	5	1 ...	35	19	
1 ...	—	—	—	1 ...	—	1 ...	—	—	7	13 ...	1	1 ...	—	—	1	1 ...	—	—	1	4 ...	—	—	1 ...	2	2 ...	2	—	—	—	6	8	8
—	—	—	1	—	1	2 ...	—	—	7	3 ...	—	—	—	—	—	—	2	—	1	—	—	—	3 ...	2	2 ...	—	—	—	5 ...	3	3	
—	—	—	—	1 ...	2	1 ...	1	—	7	5 ...	1	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	4 ...	2	2	
—	2	—	—	—	2	1 ...	—	—	7	3 ...	—	—	—	1 ...	—	—	—	—	—	—	—	—	—	1 ...	1	—	—	—	2	—	—	
2 ...	1	1 ...	1	1 ...	1	6 ...	3	3 ...	21	24 ...	2	5 ...	1	—	1	1 ...	1	—	—	4 ...	—	2 ...	2	2 ...	2	1 ...	1	3 ...	14	15	3	
1 ...	—	1 ...	—	—	—	—	—	—	—	3 ...	—	—	—	—	—	—	—	1 ...	—	—	—	—	—	—	—	1 ...	—	1 ...	—	—	—	
2 ...	—	1 ...	—	—	—	1 ...	—	—	—	11 ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1 ...	—	3	3	
4 ...	2	—	1	—	8	9 ...	—	2 ...	42	26 ...	2	—	3	1 ...	4	2 ...	4	4 ...	5	2 ...	1	—	5 ...	7 ...	4	1 ...	4	1 ...	32	18	18	
—	—	—	—	1 ...	1	—	2	—	8	2 ...	—	—	—	—	1	—	—	1 ...	1	2 ...	—	—	1 ...	2	—	—	—	—	5 ...	4	4	
—	—	—	1	2 ...	11	4 ...	1	—	43	15 ...	1	—	—	—	5	1 ...	6	—	10	3 ...	3	—	3 ...	1 ...	5	2 ...	4	1 ...	37	8	8	
15 ...	11	3 ...	13	8 ...	18	17 ...	3	5 ...	139	122 ...	2	3 ...	8	9 ...	7	10 ...	13	18 ...	25	29 ...	3	4 ...	14	11 ...	27	14 ...	17	16 ...	116	114	3	
—	—	—	—	—	1	2 ...	1	—	6	8 ...	—	—	—	1 ...	—	1 ...	2	—	—	—	—	—	—	—	—	1 ...	—	—	3 ...	—	—	
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	
6 ...	2	1 ...	1	1 ...	19	16 ...	3	3 ...	80	57 ...	3	—	3	1 ...	6	3 ...	7	4 ...	19	6 ...	2	1 ...	11	10 ...	11	6 ...	5	2 ...	67	33	33	
—	—	—	1	—	1	1 ...	—	—	9	5 ...	1	—	—	1 ...	4	1 ...	2	—	2	—	—	—	5 ...	2 ...	—	—	—	—	14 ...	6	6	
17 ...	72	51 ...	71	81 ...	267	255 ...	30	35 ...	1140	1094 ...	14	15 ...	34	41 ...	57	54 ...	84	89 ...	197	178 ...	53	56 ...	119	102 ...	126	122 ...	113	94 ...	797	751	751	
16 ...	68	44 ...	66	74 ...	253	249 ...	26	33 ...	1078	1028 ...	13	14 ...	32	39 ...	48	46 ...	77	82 ...	180	164 ...	50	52 ...	106	90 ...	117	118 ...	103	81 ...	726	686	686	
1 ...	4	7 ...	5	7 ...	14	6 ...	4	2 ...	62	66 ...	1	1 ...	2	2 ...	9	8 ...	7	7 ...	17	14 ...	3	4 ...	13	12 ...	9	4 ...	10	13 ...	71	65	65	

